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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,873	05/31/2002	Lars Fingal	000510-011	5652

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BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
PIZIALI, ANDREW T	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/069,873	FINGAL ET AL.
	Examiner	Art Unit
	Andrew T Piziali	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-16 and 22* is/are allowed.

6)☒ Claim(s) *1,5-10 and 21* is/are rejected.

7)☒ Claim(s) *2-4 and 17-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/31/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 17 is objected to because of the following informality: Claim 17 is identical to claim 16. Appropriate correction is requested.

Specification

2. The disclosure is objected to because of the following informality: On page 5, line 30, the specification improperly references the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 95/06769 to Foster in view of evidence document USPN 6,489,534 to Cohen.

Regarding claims 1 and 5, Foster discloses a hydroentangled nonwoven fabric obtained by imparting to polymer fibers at the moment of hydroentangling a temperature equal to or exceeding the glass transition temperature of the polymer fiber and being less than the melting point of the polymer fiber (see entire document including page 6, last paragraph). Foster discloses that rather than the fibers melting (see Figure 7) the fibers can become tacky and form bonds by means of fibrils (see Figure 8). Considering that USPN 6,489,534 to Cohen discloses that the glass transition temperature is the temperature at which portions of the polymer become tacky as they begin to melt or become plastic (see paragraph bridging columns 2 and 3), it

appears that at least some of the polymer fibers of Foster are subjected to temperatures equal to or exceeding the glass transition temperature while being less than the melting point.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claim 5, Foster discloses that the temperature is achieved with the aid of hot or superheated water (page 3, lines 11-12).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/06769 to Foster in view of evidence document USPN 6,489,534 to Cohen as applied to claims 1 and 5 above, and further in view of USPN 4,728,520 to Yamaya et al. (hereinafter referred to as Yamaya).

Foster does not specifically mention the use of IR-heat or microwaves to achieve the hot or superheated water, but Yamaya discloses that that it is know in the art of heating water that IR-heat and/or microwaves may be utilized (column 8, lines 16-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use IR-heating and/or microwaves to achieve the hot or superheated water of Foster, because it is within the general skill of a worker in the art to select a known heating method on the basis of its suitability.

7. Claims 8-10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/06769 to Foster in view of evidence document USPN 6,489,534 to Cohen as applied to claims 1 and 5 above, and further in view of USPN 6,319,238 to Sartorio et al. (hereinafter referred to as Sartorio).

Foster discloses that the fibers may be thermoplastic fibers (page 2, lines6-9), but Foster does not mention specific fiber materials. Sartorio discloses that it is known to use thermoplastic fibers such as polyester, polypropylene, polylactic acid, and the like in hydroentangled nonwoven fabrics (paragraph bridging columns 6 and 7 and column 8, lines 28-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fibers from any suitable thermoplastic material, such as polyester, polypropylene, polylactic acid, and the like, as taught by Sartorio, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability. It is noted that the applicant discloses that polylactic acid has a glass transition temperature of 50 to 70°C (see page 9, lines 4-7).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/06769 to Foster in view of evidence document USPN 6,489,534 to Cohen as applied to claims 1 and 5

above, and further in view of USPN 5,334,446 to Quantrille et al. (hereinafter referred to as Quantrille).

Foster discloses that the fibers may be thermoplastic fibers (page 2, lines6-9), but Foster does not mention specific fiber materials. Quantrille discloses that it is known to use thermoplastic fibers such as polyester, polypropylene, and the like in hydroentangled nonwoven fabrics (column 2, lines 26-37 and column 8, lines 26-37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fibers from any suitable thermoplastic material, such as polyester, polypropylene, and the like, as taught by Quantrille, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

Allowable Subject Matter

9. Claims 11-16 and 22 are allowed.

10. Claims 2-4 and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art is WO 95/06769 to Foster, but Foster fails to teach or suggest the use of a polymer fiber with an initial modulus of ≥50 cN/tex. In fact, Foster teaches away from the use of a polymer fiber with an initial modulus of ≥50 cN/tex by teaching that typical fabrics produced by the method of the invention have tenacities of about 1.3 cN/tex and that typical hydroentangled fabrics have tenacities of about 0.8 cN/tex.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

6/4/04

ANDREW T. PIZIALI
PATENT EXAMINER

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700